

# Species

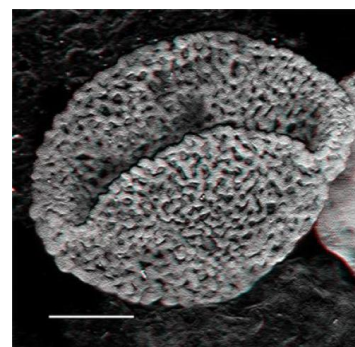
## 240 million year old, Early Triassic flower-like plant revealed the evolution of flowering plants

**Brithvi V**

Department of Pharmaceutical Technology, Anna University, BIT Campus, Trichy, Tamil Nadu, India

**Correspondence to:** Department of Pharmaceutical Technology, Anna University, BIT Campus, Trichy, Tamil Nadu, India

Flowering plants evolved from extinct plants related to conifers, cycads, ginkgos and seed ferns, and the oldest known fossils from these types of plants are pollen grains – small, robust spores which are numerous and fossilize more easily than flowers or leaves. Drilling cores have unearthed well-preserved 240-million-year-old pollen grains, making them the oldest known fossils from flowering plants. An uninterrupted sequence of fossilized pollen from flowers begins in the Early Cretaceous, approximately 140 million years ago, and it is generally assumed that flowering plants first evolved around that time. Flowering plant-like pollen that is 100 million years older, implying that flowering plants may have originated in the Early Triassic period (between 252 to 247 million years ago) or even earlier. Many studies have tried to estimate the age of flowering plants from molecular data, but so far no consensus has been reached. Depending on dataset and method, these estimates range from the Triassic to the Cretaceous. Hochuli and colleague Susanne Feist-Burkhardt from the university's Paleontological Institute and Museum studied two drilling cores from northern Switzerland and found “beautifully preserved” pollen grains that resemble fossil pollen from the earliest known flowering plants. Using confocal laser scanning microscopy, they obtained high-resolution, three-dimensional images of six different types of pollen. Researchers said the pollen's structure suggests that the plants were pollinated by insects, most likely by beetles, as bees would not evolve for another 100 million years.



### REFERENCE

1. Peter A. Hochuli and Susanne Feist-Burkhardt. Angiosperm-like pollen and Afropollis from the Middle Triassic (Anisian) of the Germanic Basin (Northern Switzerland). *Frontiers in Plant Science*, 2013 DOI:10.3389/fpls.2013.00344
2. University of Zurich (2013, October 1). New fossils push the origin of flowering plants back by 100 million years to the early Triassic. *ScienceDaily*. Retrieved October 7, 2013, from <http://www.sciencedaily.com/releases/2013/10/131001191811.htm>